Reviewer ZA
Date 3/12/86

Form/Permit # 4650
Company Name Sante Fe Minerals (Ando
Well # (b) (9)
Location [redacted]

TECHNICAL REVIEW

Type Injection Well: (EOR/SWD/HC Storage) (New/Conversion) (Active/Inactive)

Injection: (Continuous/Cyclic)

Approximate # days operating/year
Rate (B/D): Average Maximum 45 MCF/Day
Wellhead pressure (psi): Average Maximum
Fluid: TDS Sp. Gr. 1.1 Analyses included: (yes/no)
Source (formation name)

Geologic Data (all references to depths are below land surface)

Base of Historical Usable Water: 100 in sec 5
Base of USDW and how determined: 120 @ 846
Injection Interval: Top 1314 ; Bottom 1671 ; Effective Thickness
Formation name Bartlesville Lithology
Porosity (%) Initial Reservoir Pressure Date
Permeability (md)
Confining Zones: Thickness between injection zone and USDW ~ 1100
Lithology
Cumulative shale > 300 : thickest shale zone (interval)

Well Data: (all references to depths are below land surface)

TOTAL DEPTH: 1729
Surface Elevation: 866 (KB/GL) PLUGGED BACK DEPTH: 1671
Date Drilled or to be drilled: 4/23/10 Date converted: 7/15/62
Type logs available on (this well/offset well): (By reference/included)
NF

Test data: (By reference/included)

Construction:	Size (in)	Depth Interval	Sacks of Cement	Hole Size	Cement Interval	How Determined
Surface Csg.	8 5/8	20	0			
Intermediate Csg.						
Long String Csg.	6 5/8	1314	0			
Liner						
Tubing			Packer type and depth			

TYPE CEMENT = CU FT/SX × # of SX = TOTAL CU FT of CEMENT × LIN FT/CU FT (FROM TABLES) = LIN FT of CEMENT

AOR (1/4 mile radius)

Map submitted: (yes/no) Tabulation of Wells Submitted: (yes/no)
Faults Located: (yes/no); (none Present/Distance from injection well)
Number of wells in AOR:
Total (Abandon ; Production ; Injection)
Number of wells in zone of Endangering Influence: Total
Number of wells Requiring Corrective Action: Total (list below)

Well	Type Well	Problem	Corrective Action Required

Maximum Injection Pressure Calculation Pm = (Frac Gradient - (0.433 X Sp.Gr.)) depth

Pm = (0.75 - (0.433 X 1.1)) X 1314 = 360 (psi)

Technical Review (Passed/Failed)

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